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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,869	03/04/2002	Scott E. Moore	108298544US	5296

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EXAMINER

VALENTINE, DONALD R

ART UNIT PAPER NUMBER

1742

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,869

Applicant(s)

MOORE ET AL.

Examiner

Donald R. Valentine

Art Unit

1742

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1--3, 6-7, 14-18, 21-23, 26-27, 34-42 is/are rejected.
- 7) ☒ Claim(s) 4,5,8-13,19,20,24,25 and 28-33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,7.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## DETAILED ACTION

### *Oath/Declaration*

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application-by-application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 6-7, 14-18, 21-23, 26-27 and 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hisamatsu et al.

The reference shows a container holding an electrolytic solution, an object to be electrochemically treated (etched) and an electrode assembly (100). The object to be treated may

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be a photoelectricity generation device, the later of which is being considered by the examiner to be a "microelectronic workpiece". See col. 5, lines 1-14. The container (tank 204) for all of the above is being considered a "work holder". The reference further teaches an AC power supply and DC power supply all of which (including the workpiece) are interconnected by a switching mechanism (col. 6, lines 43-56). The arrangement shown appears to be "enabled to selectively couple the AC and/or the DC power supply" to the object (workpiece/microelectronic element). Col. 4, lines 44-50 and col. 6, lines 12-56. Semiconductive elements are disclosed.

Microelectronic elements are normally semiconductive in nature. See col. 13, lines 38-65.

The apparatus includes first and second electrodes that are being construed to be "remote" in that they are spaced from each other and the "workpiece holder" and also spaced from the container "the workholder" during the electrochemical treatment activity (etching). See col. 4, lines 5-40.

The apparatus also includes a "mechanical medium" in the form of a "wiping medium" which appears to be intended to have the "bearing" surface adapted to face the workpiece (202) (Figure 1). See col. 11, lines 1-10.

As for claim 6, the electrode assembly carries the first and second "remote" electrodes.

As for claim 7, the electrode assembly is shown to be moveable. (Col. 7, lines 50-55).

As for claim 42, the reference appears to incorporate a "dwell time" because there is apparent current control associated with a timer. (See col. 6, lines 50-56).

The reference does not show a "workpiece electrode configured to contact the processing side when the workpiece is received in the workpiece holder.

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It would be considered within the skill of the art to provide an appropriate electrode for connection to an appropriate side of the workpiece because without such means the electro-mechanical process would not be enabled to proceed.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-3 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 2-3 recite the limitation "first electrode" in lines 1 and 2, respectively. There is insufficient antecedent basis for this limitation in the claims.

8. Claim 42 recites the limitation "layer of plated material" in line 17. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

9. Claims 4-5, 8-13, 19-20, 24-25 and 28-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 2-3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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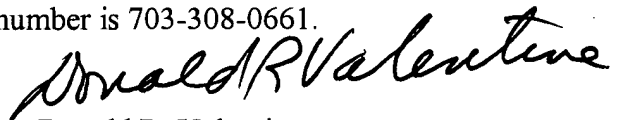
11. The following is a statement of reasons for the indication of allowable subject matter:  
The references of record do not show or suggest method and apparatus in which a workpiece holder is adapted to receive a microelectronic workpiece, having first and second remote electrodes spaced apart from the workpiece holder, a mechanical medium between the holder and the first and second remote electrodes, an AC power supply, a DC power supply, as switching assembly configured to selectively couple the workpiece and at least one of the first and second remote electrodes to the DC power supply and wherein the first remote electrode is carried by the workpiece holder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald R. Valentine whose telephone number is 703-308-3327.

The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Donald R. Valentine  
Primary Examiner  
Art Unit 1742

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October 31, 2003